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NOTICE OF ALLOWANCE AND FEE(S) DUE

24737	7590	61/13/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER NIU, XINNING

ART UNIT PAPER NUMBER

2828 DATE MAILED: 01/13/2009

	APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
ľ	10/557 627	11/17/2005	Gerard Flise Schreurs	NI 030627	4470

TITLE OF INVENTION: METHOD AND RADIATION SOURCE DRIVING DEVICE FOR CONTROLLING RADIATION POWER

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	04/13/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and I/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

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								(Signature)
								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	TOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/557,627	11/17/2005		Gerard Elise Schreu	urs			NL030627	4470
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nonprovisional	NO	\$1510	\$300		\$0		\$1810	04/13/2009
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Please check the appropr	iate assignee category or	categories (will not be po	rinted on the patent):		Individual 🚨 Co	orporati	on or other private gro	up entity 🗖 Government
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5. Change in Entity Sta	tus (from status indicate s SMALL ENTITY statu		☐ b. Apolicant is no	long	or claiming SMA	I EN	FITY status. See 37 CF	TP 1 27(a)(2)
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interest as shown by the	records of the United Sta	tes Patent and Trademark	Office.					
Authorized Signature					Date			
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PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



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24737	590 01/13/2009	EXAMINER			
PHILIPS INTEI	LECTUAL PROPER	NIU, XINNING			
P.O. BOX 3001		ART UNIT	PAPER NUMBER		
BRIARCLIFF MA	ANOR, NY 10510	2828			

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 392 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 392 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Application No. Applicant(s) 10/557.627 SCHREURS ET AL. Notice of Allowability Examiner Art Unit XNNING NIU 2828 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. This communication is responsive to amendment filed 10/22/2008. The allowed claim(s) is/are 1-7 and 9-15. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) X All b) ☐ Some* c) ☐ None of the: 1. T Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. \(\overline{\text{Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. | Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. Examiner's Amendment/Comment Paper No./Mail Date 4. T Examiner's Comment Regarding Requirement for Deposit 8. X Examiner's Statement of Reasons for Allowance of Biological Material 9. ☐ Other . /Minsun Harvey/

Supervisory Patent Examiner, Art Unit 2828

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REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance: the specific limitations of "...driving the radiation source with the threshold current increased with the delta current (Idelta) for obtaining the predetermined radiation power, wherein the delta current is calculated from the threshold current by using a function F which is a model for the relation between the threshold current and the delta current and the radiation power, characterized in that the method further comprises the step of c) calibrating the function F, comprising the substeps of c1) determining the radiation power and the delta current at least two different threshold currents when the radiation source is driven in the first mode, and c2) updating at least one parameter of the function F by using the measurements in substep c1.", in the combination as claimed in claim 1. The specific limitations of "...estimated delta current generator for generating an estimated delta current which is calculated from the threshold current by using a function F which is a model for the relation between the threshold current and the delta current and the radiation power, delta current outputting means for outputting the delta current wherein the online delta current is outputted when the radiation power is measured and the estimated delta current is outputted when the radiation power is not measured, characterized in that the radiation source driving device further comprises calibration means for updating at least one parameter of the function F, wherein the delta current the threshold current and the measured radiation power are fed to the calibration means and wherein the radiation power and the delta current are determined Application/Control Number: 10/557,627 Page 3

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at least two different threshold currents and are subsequently used to update the at least one parameter." in the combination as claimed in claim 7.

- 2. Burley discloses: measuring the radiation power emitted by the radiation source using photodiode (42) (Figures 3, Col 4, Lines 3-16); the addition means is inherently a part of the laser drive means (12) and laser bias means (14) since the current outputted is the threshold current and the current above threshold (Figure 3, Col 3, Lines 27-60). Burley does not disclose: a threshold current determining means, a delta current determining means, delta current generator, estimated delta current generator, delta current outputting means and calibration means. Everett discloses: delta current determined based on the threshold current (Figure 2, [0034]); delta current is a function of temperature such that the output power of the laser can remain constant (Figure 2, [0034]); control unit (31) and current driver (30) (Figure 2, [0034]).
- 3. However the prior art of record fails to teach or suggest: the specific limitations of "...driving the radiation source with the threshold current increased with the delta current (Idelta) for obtaining the predetermined radiation power, wherein the delta current is calculated from the threshold current by using a function F which is a model for the relation between the threshold current and the delta current and the radiation power, characterized in that the method further comprises the step of c) calibrating the function F, comprising the substeps of c1) determining the radiation power and the delta current at least two different threshold currents when the radiation source is driven in the first mode, and c2) updating at least one parameter of the function F by using the measurements in substep c1.", in the combination as claimed in claim 1. The specific

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limitations of "...estimated delta current generator for generating an estimated delta current which is calculated from the threshold current by using a function F which is a model for the relation between the threshold current and the delta current and the radiation power, delta current outputting means for outputting the delta current wherein the online delta current is outputted when the radiation power is measured and the estimated delta current is outputted when the radiation power is not measured, characterized in that the radiation source driving device further comprises calibration means for updating at least one parameter of the function F, wherein the delta current the threshold current and the measured radiation power are fed to the calibration means and wherein the radiation power and the delta current are determined at least two different threshold currents and are subsequently used to update the at least one parameter." in the combination as claimed in claim 7.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Xinning(Tom) Niu whose telephone number is 571-270-1437. The examiner can normally be reached on M-T, 7:30-5:00 EST, Alternate Fridays 7:30-4:00 ES.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) 272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Xinning(Tom) Niu/ Examiner, Art Unit 2828 01/08//2009

/Minsun Harvey/

Supervisory Patent Examiner, Art Unit 2828